



**IEA Climate Change Work
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IEA Climate Change Work Main Elements

- **Policy analysis**
 - ◆ **Policies and Measures; Indicators; Kyoto Mechanisms; Non-Member Countries;**
- **Technology**
 - ◆ **Climate Technology Initiative; Technology Co-operation projects; “Leaking Electricity”**
- **Statistics**



Policies and Measures

- **Discussion of domestic measures**
 - ◆ **Workshop: 15-16 April 1999**
- **Kyoto and beyond: a 'gap' analysis**
- **Industry climate change initiatives**

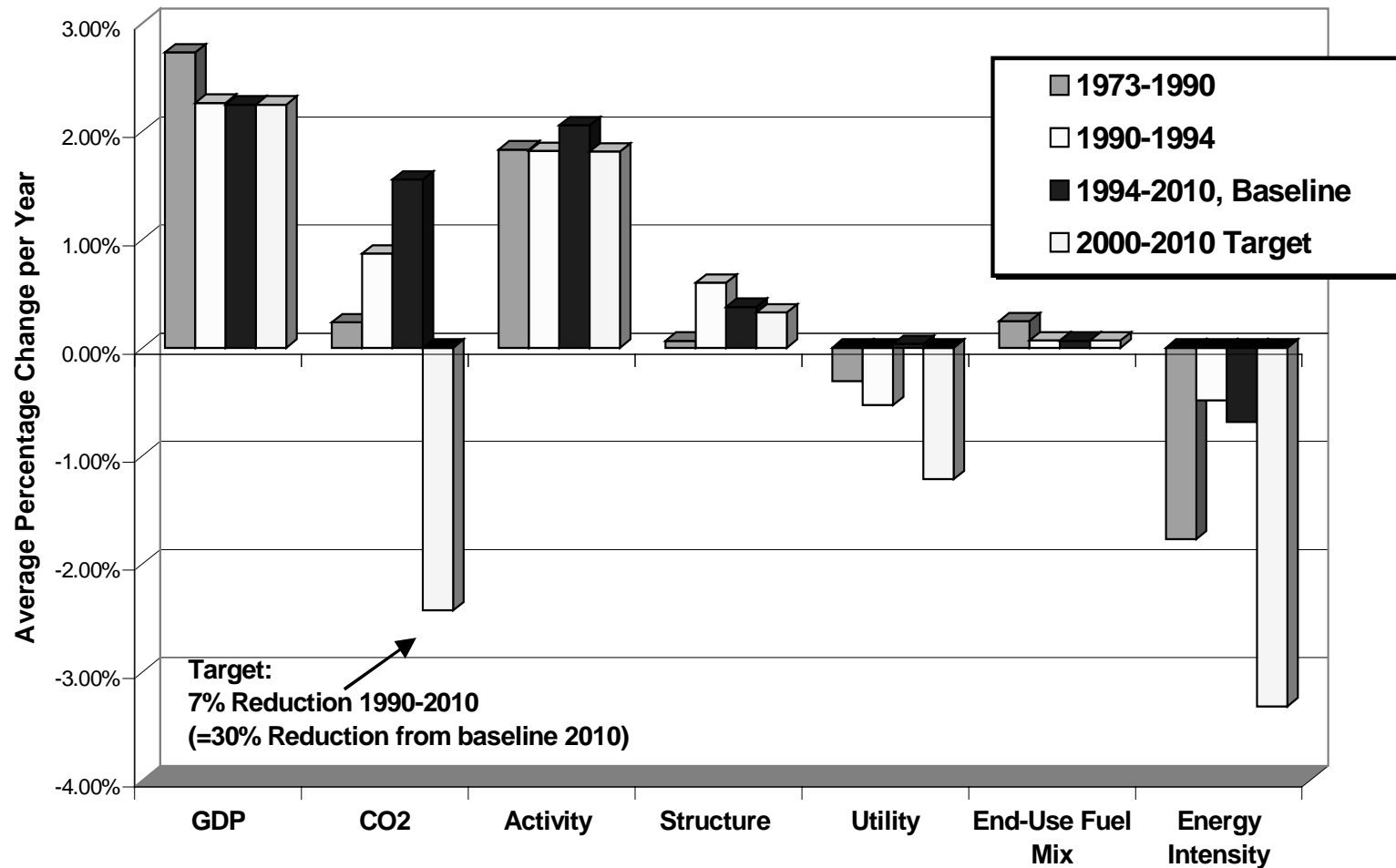


Energy Indicators

- **A tool to study energy and emission developments based on energy use, economic and human activities**
 - ◆ **Level / magnitude of sectoral activity**
 - ◆ **Structure (mix of activities in each sector)**
 - ◆ **Energy intensity & carbon intensity**
- **Provides a common methodology, transparency and improved data quality**



Past and future trends in US CO2 emissions - Input to the "GAP" Analysis





Kyoto Mechanisms

- **International emissions trading (IET)**
- **Project-Based activities (CDM & JI)**



Economics of emissions trading

- **Annex I only**
 - ◆ **Average market price: US\$ 23/tCO₂**
 - ◆ **Transfers to EITs: US\$ 44 Bn / year**
 - ◆ **Foreign direct investment: US\$ 10.5 Bn**
- **“Universal” CDM**
 - ◆ **Average market price: US\$ 7/tCO₂**
 - ◆ **Transfers to developing countries: US\$ 9 Bn**
 - ◆ **Foreign direct investment: US\$ 90 Bn**



Liability Rules

- **Issuer liability**
 - ◆ **Basic, Issuer + escrow, Issuer + Reserve(s)**
- **Buyer beware**
 - ◆ **Basic, Buyer + insurance**
- **Hybrid systems**
 - ◆ **“Traffic Light Option”, Shared buyer/issuer liability**



Non-Member Countries

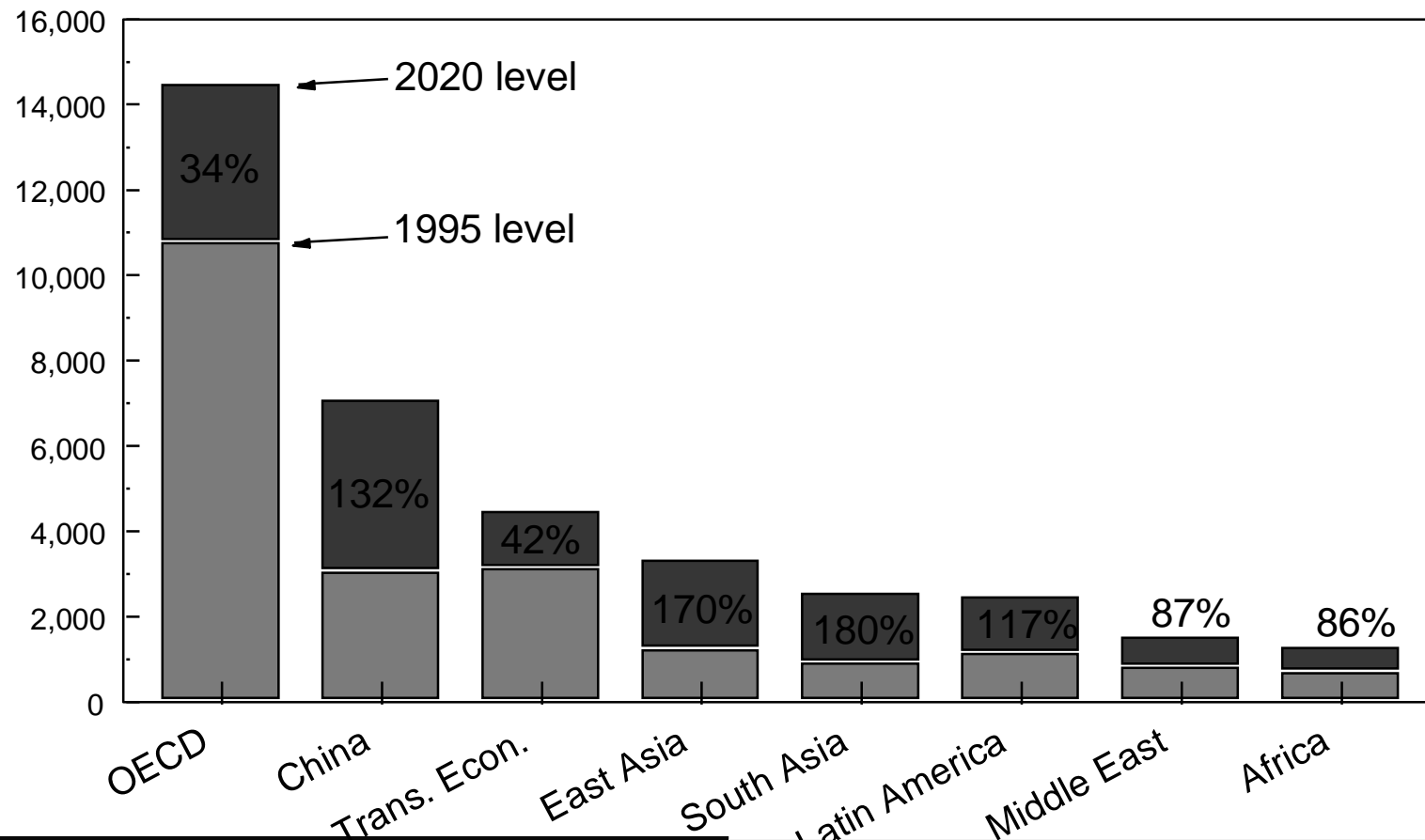
- **Emissions in Non-Member Countries**
- **Energy prices and subsidies in Non-Member Countries**
 - **Brazil, China, India, Indonesia, Iran, Kazakhstan, Russia, South Africa, Venezuela**



CO2 Emissions : A Regional View

Data from WEO 1998 -- BAU Scenario

Million tonnes of CO2





Technology Co-operation

- **Climate Technology Initiative** 
 - ◆ **Co-operation with non-OECD countries**
 - ◆ **Joint seminars with industry**
 - ◆ **Focus on capacity-building, technology assessment, and R&D**
- **Technology Co-operation Agreements**
 - ◆ **China coal power plant pilot activity**



International Action to Reduce Leaking Electricity

- **Appliances average losses through ‘standby’ mode amount to 5 -10% of total residential electrical consumption**
- **May account for more than 1% of OECD CO₂ emissions**
- **Study to be published in October 1999**



Energy statistics: a Contribution to Compliance

- **Data currently available**
 - ◆ **Sectoral energy and CO2 data by country & region**
- **Utility of IEA Statistics for UNFCCC implementation**



Energy Ministers Meeting May 1999

- **The contribution of technology to reduce energy-related GHG emissions**
- **A provocative paper on energy & climate change**
- **Other IEA material**